

**ARIZONA GAME AND FISH DEPARTMENT
HERITAGE DATA MANAGEMENT SYSTEM**

Plant Abstract

Element Code: PDBOR0A120

Data Sensitivity: No

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Cryptantha ganderi* I.M. Johnston

COMMON NAME: Gander's Cryptantha, Dune Cryptantha

SYNONYMS:

FAMILY: Boraginaceae

AUTHOR, PLACE OF PUBLICATION: I.M. Johnston, Journal of the Arnold Arboretum 20(3): 386-387. 1939.

TYPE LOCALITY: USA, California, San Diego County, Borego [Borrego] Valley, near school.

TYPE SPECIMEN: HT: GH-95946. F.F. Gander 5328, 25 Apr 1938, in fruit.

TAXONOMIC UNIQUENESS: *Cryptantha ganderi* is 1 of 115 species in the genus *Cryptantha*.

DESCRIPTION: Small distinct herbaceous annual, with a golden yellow hue, 10-40 cm (4-16 in) tall. Stems are simple to branched throughout (branching at base or slightly above it), strigose and rough-hairy to bristly; hairs spreading. Leaves are 1-4 cm (0.4-1.6 in) long, linear to narrowly lanceolate, with spreading bristles; some are bulbous based; leaves are not in a basal rosette. The inflorescence is helicoids (spike that is unbranched with sessile flowers). The small corollas are pure white, 2.8-3.5 mm wide. Sepals are densely strigose to rough-hairy, linear-oblong, and 3-4 mm long (6-10 mm in fruit). The midvein is densely spreading, long, and bristly. Nutlets 2.5-3 mm long, 1 (2) per fruit, lanceolate, back smooth, shiny, with a faint longitudinal ridge; the grove closed above, forked at base into a narrow triangular areola; generally mottled gray-brown.

AIDS TO IDENTIFICATION: "There are many species of *Cryptantha*, each differing in minute floral/fruit characters. One sympatric species, *C. angustifolia*, has 2-3(4) nutlets per fruit. The back of the nutlet of *C. barbiger*a fruits is not smooth, but covered with white tubercles (bumps)." (Falk et al., 2001). Vegetatively somewhat similar to *C. barbiger*a but usually with somewhat smaller, narrower leaves and more ridged stems (Felger, 2000).

ILLUSTRATIONS: Line drawing (Hickman, 1993: P. 379).
Line drawing (Falk et al., 2001).

TOTAL RANGE: Occurs across the range of southern California and Arizona in the United States, and Baja California and Sonora, in Mexico. Specifically, it occurs on sand dunes around the head of the Gulf of California, including the Gran Desierto de Altar in Sonora, Mexico, the Pinta Sands in Arizona, and the Borrego Valley in California.

RANGE WITHIN ARIZONA: Pinta Sands, Cabeza Prieta National Wildlife Refuge, Yuma County. Felger (2000) reports that this plant barely extends into adjacent Cabeza Prieta Refuge (from Mexico), but extends slightly farther northward on the Mohawk Dunes.

SPECIES BIOLOGY AND POPULATION TRENDS

GROWTH FORM: Annual forb/herb.

PHENOLOGY: Flowering and fruiting February – March (-May).

BIOLOGY:

HABITAT: Occurs in sandy soil in desert dunes and Sonoran desert scrub. In Arizona, this species was collected (ASU-208537) on low dunes encroaching lava field; sandy soils including dunes and sand flats.

ELEVATION: In Arizona, < 1,000 ft (305 m). For its range, < 1,311 ft (400 m). The BLM Palm Springs Field Office (2004) reports the elevation as 512-1,280 feet (156-390 m).

EXPOSURE:

SUBSTRATE: Sandy.

PLANT COMMUNITY: Sonoran Desert Scrub, Creosote Bush Scrub, Desert dunes. In Arizona, *Cryptantha ganderi* is sympatric with *Cryptantha angustifolia* (creosote-bush cat's-eye). Associated plants include: *Ambrosia dumosa* (white bursage), *Aristida californica* var. *californica* (California three-awn grass), *Croton californicus* (California croton), *Larrea tridentata* (Creosote Bush), *Opuntia kunzei* (Devil's prickly-pear), *Pleuraphis rigida* (big galleta), *Stillingia linearifolia* (desert stillingia), *Tiquilia palmeri* (Palmer's Tiquilia), and *Triteleiosis palmeri* (big sand lily). In Arizona, often sympatric with *C. angustifolia* and *C. micrantha* (red-root cat's-eye). (Felger, Steinmann and Telewski, 1993 in press; SEINet 2004: ASU-208537).

POPULATION HISTORY AND TRENDS: Unknown. There are six observations in San Diego County, California (CalFlora, 2004). At the 1993 collection site in Yuma County, Arizona (R.S. Felger 93-388, ASU-208537), it was found to be common. According to Reiser (1994), "This annual is presumed stable but may grow at only a very few locales in the United States. Disturbance at these few sites could severely impact the total population."

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS:

SC (USDI, FWS 1996)
[C2 USDI, FWS 1993]
[C2 USDI, FWS 1990]
[C2 USDI, FWS 1985]
[C2 USDI, FWS 1983]
[C1 USDI, FWS 1980]

STATE STATUS:

None

OTHER STATUS:

Extremely Rare (CNPS 1997)
California BLM Sensitive

MANAGEMENT FACTORS:

Seriously threatened by development and vehicle use in California
(NatureServe, 2001, 2004).

PROTECTIVE MEASURES TAKEN:**SUGGESTED PROJECTS:**

LAND MANAGEMENT/OWNERSHIP: USFWS – Cabeza Prieta National Wildlife Refuge.

SOURCES OF FURTHER INFORMATION**REFERENCES:**

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MAJOR KNOWLEDGEABLE INDIVIDUALS:**ADDITIONAL INFORMATION:**

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